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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: **SUZUKI, Jun**

Group Art Unit: **2627**

Serial No.: **10/594,948**

Examiner: **ORTIZ CRIADO, Jorge**

Filed: **July 30, 2007**

P.T.O. Confirmation No.: 5761

FOR: **ACTUATOR FOR PICKUP, PICKUP DEVICE, RECORDING MEDIUM DRIVE DEVICE, AND METHOD OF MANUFACTURING ACTUATOR FOR PICKUP**

APPLICANT'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW, PURSUANT TO 37 C.F.R. § 1.133

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

July 8, 2010

Sir:

In view of 37 C.F.R. § 1.133, Applicant hereby submits the statement of the substance of the interview. Applicant and Applicant's attorney thank Examiner Ortiz Criado for the telephone interview on June 7, 2010. The special attention the Examiner paid to the instant application is noted with appreciation. During the interview, pending claims and the Restriction Requirement dated May 12, 2010, were discussed.

On September 29, 2006, original claims 1-11 were filed and also a Preliminary Amendment was filed in the U.S. Patent and Trademark Office. The Preliminary Amendment that was filed on September 29, 2006, was drafted to amend claims 1-11 and add new claims 12-18.

During the interview, the Examiner indicated that the currently pending claims appear to be

1-11, as shown in Appendix A (attached). These claims 1-11 are the original claims as filed on September 29, 2006. The Examiner also confirmed that the U.S. Patent and Trademark Office received the Preliminary Amendment on September 29, 2006. The Examiner noted that the U.S. Patent and Trademark Office did not yet enter the Preliminary Amendment. The Examiner did not explain why the U.S. Patent and Trademark Office did not yet enter the Preliminary Amendment.

The Examiner stated that he shall now try to get the U.S. Patent and Trademark Office to enter the Preliminary Amendment that was filed on September 29, 2006.

The Examiner indicated that the Applicant must respond to the Restriction Requirement. The Examiner provided these instructions: In the response to the Restriction Requirement, the Applicant should act as if the Preliminary Amendment was already entered. In other words, the Examiner noted that the Applicant should presume that the Examiner will be able to have the Preliminary Amendment entered. Thus, the Applicant should treat the Restriction Requirement as a restriction among claims 1-18 as shown in Appendix B (attached). The Appendix B shows the listing of claims 1-18 from the Preliminary Amendment as filed on September 29, 2006.

The Examiner stated that he will prepare an Interview Summary regarding our interview on June 7, 2010. In the Interview Summary, he will note that the Examiner stated that the Restriction Requirement should be treated as pertaining to claims 1-18 as shown in the Preliminary Amendment

filed on September 29, 2006. Thus, the Examiner has stated that the Restriction Requirement has been modified by Examiner through the Interview. In view of the above, Applicant shall respond to the Restriction Requirement as if claims 1-18 are pending (as shown in Appendix B).

The Restriction Requirement dated May 12, 2010, describes a **Group I** drawn to actuator for a pickup related to a subject matter that comprises five or more linear elastic members.

The Restriction Requirement dated May 12, 2010, describes a **Group II** drawn to actuator for a pickup related to a subject matter that comprises four linear elastic members.

In the Restriction Requirement dated May 12, 2010, the Examiner indicated that claims 1, 2, 7-9, and 11 (from Appendix A) correspond to **Group I**, and the Examiner indicated that claims 3-6 and 10 (from Appendix A) correspond to **Group II.** However, during the interview, the Examiner stated that Applicant must identify which claims 1-18 from the Preliminary Amendment (see Appendix B) correspond to **Group I**, and must also identify which claims 1-18 from the Preliminary Amendment (see Appendix B) correspond to **Group II.**

During the interview, the Examiner indicated that the listing of claims 1 and 12-22 (as shown in the U.S. pre-grant publication of this application) does not appear to have been officially "entered" by the U.S. Patent and Trademark Office, according to his review of the record for the file.

In the event that this paper is not timely filed, the Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosures:
Appendix A (claims 1-11 as filed September 29, 2006 (pages 24-27))
Appendix B (claims 1-18 as filed September 29, 2006 (Preliminary Amendment, pages 6-20))

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APPENDIX A

CLAIMS

[1] An actuator for a pickup, comprising:

a fixed portion;

a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and

a plurality of linear elastic members of five or more each having ends connected to the movable portion and the fixed portion, respectively, wherein

the ends of the plurality of the linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction, and

the virtual circle has a center defined as a rolling center, which coincides with at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members.

[2] The actuator for the pickup according to Claim 1, wherein the linear elastic members include six linear elastic members.

[3] An actuator for a pickup, comprising:

a fixed portion;

a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and in a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and

four linear elastic members each having ends connected to the movable portion and the fixed portion, respectively, wherein

the ends of the four linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction,

the ends are linked with one another by line segments constituting substantially a

trapezoidal shape, and

the virtual circle has a center defined as a rolling center, which coincides with at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members.

[4] The actuator for the pickup according to Claim 3, wherein

the four linear elastic members are composed of two linear elastic members linked with each other by a line segment constituting an upper base of the trapezoidal shape, and two linear elastic members linked with each other by a line segment constituting a lower base of the trapezoidal shape, and

the former two linear elastic members are different in cross-sectional area from the latter two linear elastic members.

[5] The actuator for the pickup according to Claim 4, wherein the two linear elastic members linked with each other by the line segment constituting the upper base of the trapezoidal shape are different in cross-sectional width dimension from the two linear elastic members linked with each other by the line segment constituting the lower base of the trapezoidal shape.

[6] The actuator for the pickup according to Claim 3, wherein

the four linear elastic members are composed of the two linear elastic members linked with each other by the line segment constituting an upper base of the trapezoidal shape and the two linear elastic members linked with each other by the line segment constituting a lower base of the trapezoidal shape, and

the former two linear elastic members are different in modulus of elasticity from the latter two linear elastic members.

[7] A pickup device, comprising:

the actuator for the pickup according to any one of Claims 1 to 6; and

an actuator drive portion for driving the actuator for the pickup.

[8] A recording medium drive device, comprising:

the pickup device according to Claim 7.

[9] A method of producing an actuator for a pickup including: a fixed portion; a

movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, to hold the objective lens; and a plurality of linear elastic members of five or more each having ends connected to the movable portion and the fixed portion, respectively,

the method, comprising:

locating the ends of the plurality of the linear elastic members on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction, respectively; and

making at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members coincide with a center of the virtual circle defined as a rolling center.

[10] A method of producing an actuator for a pickup including: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, to hold the objective lens; and four linear elastic members each having ends connected to the movable portion and the fixed portion, respectively,

the method, comprising:

locating the ends of the four linear elastic members on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction;

ensuring that line segments linking the ends with one another assume substantially a trapezoidal shape; and

making at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members coincide with a center of the virtual circle defined as a rolling center.

[11] The method of producing the actuator for the pickup according to Claim 9 or 10, further comprising:

installing the linear elastic members in a mold for molding the fixed portion and

the movable portion; and

insert-molding the actuator for the pickup through injection of a molten resin from an injection port of the mold.

APPENDIX B

Jun SUZUKI

(§371 of International Application PCT/JP05/06153)

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-11 have been amended and claims 12-18 have been added as follows:

Listing of Claims:

Claim 1 (currently amended): An actuator for a pickup, comprising:

a fixed portion;

a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and

a plurality of linear elastic members of five or more each having ends connected to the movable portion and the fixed portion, respectively, wherein

the plurality of the linear elastic members is equal to one another in length dimension between the fixed portion and the movable portion,

the ends of the plurality of the linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction, [[and]]

the virtual circle has a center defined as a rolling center [[,]] with which a center of translational forces of the linear elastic members coincides, and

~~coincides with at~~ least one of a center of gravity of the movable portion [[,]] and a center of a driving force of the movable portion~~, and a center of translational forces of the linear elastic members~~ coincides with the rolling center.

Claim 2 (currently amended): [[The]] An actuator for [[the]] a pickup ~~according to Claim 1, wherein the linear elastic members include six linear elastic members~~ comprising:

a fixed portion;

a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and

a plurality of linear elastic members of five or more each having ends connected to the movable portion and the fixed portion, respectively, wherein:

the plurality of the linear elastic members is equal to one another in length dimension between the fixed portion and the movable portion,

the ends of the plurality of the linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction, and

the virtual circle has a center defined as a rolling center, which coincides with a center of translational forces of the linear elastic members, a center of gravity of the movable portion, and a center of a driving force of the movable portion.

Claim 3 (currently amended): [[An]] The actuator for [[a]] the pickup~~, comprising:~~

~~a fixed portion;~~

~~a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and in a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and~~

~~four linear elastic members each having ends connected to the movable portion and the fixed portion, respectively, wherein~~

~~the ends of the four linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction;~~

~~the ends are linked with one another by line segments constituting substantially a trapezoidal shape, and~~

~~the virtual circle has a center defined as a rolling center, which coincides with at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members~~ according to claim 1, wherein

the linear elastic members include six linear elastic members,

the linear elastic members are disposed laterally symmetrically across the rolling center in the tracking direction, and

the linear elastic members which are adjacent to one another in a direction parallel to the tracking direction satisfy a relationship of $KC \times C + KA \times A = KB \times B$ when the linear elastic members close to the rolling center are disposed on one side of the focusing direction, and a relationship of

KA×A = KC×C+KB×B when the linear elastic members close to the rolling center are disposed on another side of the focusing direction, given that line segments drawn from the rolling center onto line segments linking the ends of the linear elastic members with each other have length dimensions A, C, and B and moduli of elasticity KA, KC, and KB, respectively, sequentially in the focusing direction.

Claim 4 (currently amended): The actuator for the pickup according to Claim [[3]] 2, wherein

~~the four linear elastic members are composed of two linear elastic members linked with each other by a line segment constituting an upper base of the trapezoidal shape, and two linear elastic members linked with each other by a line segment constituting a lower base of the trapezoidal shape; and~~

~~the former two linear elastic members are different in cross-sectional area from the latter two linear elastic members~~ the linear elastic members include six linear elastic members,

the linear elastic members are disposed laterally symmetrically across the rolling center in the tracking direction, and

the linear elastic members which are adjacent to one another in a direction parallel to the tracking direction satisfy a relationship of KC×C+KA×A = KB×B when the linear elastic members close to the rolling center are disposed on one side of the focusing direction, and a relationship of KA×A = KC×C+KB×B when the linear elastic members close to the rolling center are disposed on another side of the focusing direction, given that line segments drawn from the rolling center onto line segments linking the ends of the linear elastic members with each other have length dimensions

A, C, and B and moduli of elasticity KA, KC, and KB, respectively, sequentially in the focusing direction.

Claim 5 (currently amended): [[The]] An actuator for [[the]] a pickup ~~according to Claim 4, wherein the two linear elastic members linked with each other by the line segment constituting the upper base of the trapezoidal shape are different in cross-sectional width dimension from the two linear elastic members linked with each other by the line segment constituting the lower base of the trapezoidal shape~~ , comprising:

a fixed portion;

a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and in a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and

four linear elastic members each having ends connected to the movable portion and the fixed portion, respectively, wherein

the ends of the four linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction,

the ends are linked with one another by line segments constituting substantially a trapezoidal shape, and

the virtual circle has a center defined as a rolling center, which coincides with at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members.

Claim 6 (currently amended): The actuator for the pickup according to Claim [[3]] 5, wherein

the four linear elastic members are composed of the two linear elastic members linked with each other by [[the]] a line segment constituting an upper base of the trapezoidal shape, and [[the]] two linear elastic members linked with each other by [[the]] a line segment constituting a lower base of the trapezoidal shape, and

the former two linear elastic members are different in ~~modulus of elasticity from the latter two linear elastic members~~ cross-sectional area from the latter two linear elastic members.

Claim 7 (currently amended): [[A]] The actuator for the pickup ~~device, comprising:~~

~~the actuator for the pickup according to any one of Claims 1 to 6; and~~

~~an actuator drive portion for driving the actuator for the pickup~~ according to Claim 6, wherein the two linear members linked with each other by the line segment constituting the upper base of the trapezoidal shape are different in cross-sectional width dimension from the two linear elastic members linked with each other by the line segment constituting the lower base of the trapezoidal shape.

Claim 8 (currently amended): [[A]] The ~~recording medium drive device, comprising:~~

~~the pickup device according to Claim 7~~ actuator for the pickup according to Claim 5, wherein

the four linear elastic members are composed of two linear elastic members linked with each other by a line segment constituting an upper base of the trapezoidal shape, and two linear elastic members linked with each other by a line segment constituting a lower base of the trapezoidal shape, and

the former two linear elastic members are different in modulus of elasticity from the latter two linear elastic members.

Claim 9 (currently amended): A ~~method of producing an actuator for a pickup including: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, to hold the objective lens; and a plurality of linear elastic members of five or more each having ends connected to the movable portion and the fixed portion, respectively,~~

~~the method, comprising:~~

~~locating the ends of the plurality of the linear elastic members on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction, respectively; and~~

~~making at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members coincide with a center of the virtual circle defined as a rolling center~~ pickup device, comprising:

an actuator for a pickup; and

an actuator drive portion for driving the actuator for the pickup, wherein

the actuator for the pickup includes: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and a plurality of linear elastic

members of five or more each having ends connected to the movable portion and the fixed portion, respectively,

the plurality of the linear elastic members is equal to one another in length dimension between the fixed portion and the movable portion,

the ends of the plurality of the linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction,

the virtual circle has a center defined as a rolling center with which a center of translational forces of the linear elastic members coincides, and

at least one of a center of gravity of the movable portion and a center of a driving force of the movable portion coincides with the rolling center.

Claim 10 (currently amended): A ~~method of producing an actuator for a pickup including: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, to hold the objective lens; and four linear elastic members each having ends connected to the movable portion and the fixed portion, respectively,~~

~~the method, comprising:~~

~~locating the ends of the four linear elastic members on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction;~~

~~ensuring that line segments linking the ends with one another assume substantially a trapezoidal shape; and~~

~~making at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members coincide with a center of the virtual circle defined as a rolling center~~ pickup device, comprising:

an actuator for a pickup; and

an actuator drive portion for driving the actuator for the pickup, wherein

the actuator for the pickup includes: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and a plurality of linear elastic members of five or more each having ends connected to the movable portion and the fixed portion, respectively,

the plurality of the linear elastic members is equal to one another in length dimension between the fixed portion and the movable portion,

the ends of the plurality of the linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction, and

the virtual circle has a center defined as a rolling center, which coincides with a center of translational forces of the linear elastic members, a center of gravity of the movable portion, and a center of a driving force of the movable portion.

Claim 11 (currently amended): [[The]] A ~~method of producing the actuator for the~~ pickup ~~according to Claim 9 or 10, further comprising:~~

~~installing the linear elastic members in a mold for molding the fixed portion and the movable portion; and~~

~~insert-molding the actuator for the pickup through injection of a molten resin from an injection port of the mold~~ pickup device, comprising:

an actuator for a pickup; and

an actuator drive portion for driving the actuator for the pickup, wherein

the actuator for the pickup includes: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and in a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and four linear elastic members each having ends connected to the movable portion and the fixed portion, respectively,

the ends of the four linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction,

the ends are linked with one another by line segments constituting substantially a trapezoidal shape, and

the virtual circle has a center defined as a rolling center, which coincides with at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members.

Claim 12 (new): A recording medium drive device, comprising:

a pickup device including: an actuator for a pickup; and

an actuator drive portion for driving the actuator for the pickup, wherein

the actuator for the pickup includes: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and a plurality of linear elastic members of five or more each having ends connected to the movable portion and the fixed portion, respectively,

the plurality of the linear elastic members is equal to one another in length dimension between the fixed portion and the movable portion,

the ends of the plurality of the linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction,

the virtual circle has a center defined as a rolling center with which a center of translational forces of the linear elastic members coincides, and

at least one of a center of gravity of the movable portion and a center of a driving force of the movable portion coincides with the rolling center.

Claim 13 (new): A recording medium drive device, comprising:

a pickup device including: an actuator for a pickup; and an actuator drive portion for driving the actuator for the pickup, wherein

the actuator for the pickup includes: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and a plurality of linear elastic members of five or more each having ends connected to the movable portion and the fixed portion, respectively,

the plurality of the linear elastic members is equal to one another in length dimension between the fixed portion and the movable portion,

the ends of the plurality of the linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction, and

the virtual circle has a center defined as a rolling center, which coincides with a center of translational forces of the linear elastic members, a center of gravity of the movable portion, and a center of a driving force of the movable portion.

Claim 14 (new): A recording medium drive device, comprising:

a pickup device including: an actuator for a pickup; and an actuator drive portion for driving the actuator for the pickup, wherein

the actuator for the pickup includes: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and in a tracking direction substantially perpendicular to the focusing direction, due to a driving force transmitted from a drive portion, for holding the objective lens; and four linear elastic members each

having ends connected to the movable portion and the fixed portion, respectively,

the ends of the four linear elastic members are located on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction,

the ends are linked with one another by line segments constituting substantially a trapezoidal shape, and

the virtual circle has a center defined as a rolling center, which coincides with at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members.

Claim 15 (new): A method of producing an actuator for a pickup including: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, to hold the objective lens; and a plurality of linear elastic members of five or more each having ends connected to the movable portion and the fixed portion, respectively,

the method, comprising:

equalizing the plurality of the linear elastic members to one another in length dimension between the fixed portion and the movable portion,

locating the ends of the plurality of the linear elastic members on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction, respectively;

making a center of translational forces of the linear elastic members coincide with a center of the virtual circle which is defined as a rolling center, and

making at least one of a center of gravity of the movable portion and a center of a driving force of the movable portion coincide with the rolling center.

Claim 16 (new): A method of producing an actuator for a pickup including: a fixed portion; a movable portion designed to be movable in each of a focusing direction extending along an optical axis of an objective lens and a tracking direction substantially perpendicular to the focusing direction, to hold the objective lens; and four linear elastic members each having ends connected to the movable portion and the fixed portion, respectively,

the method, comprising:

locating the ends of the four linear elastic members on a virtual circle formed on a plane by being projected onto a plane including both the focusing direction and the tracking direction;

ensuring that line segments linking the ends with one another assume substantially a trapezoidal shape; and

making at least one of a center of gravity of the movable portion, a center of a driving force of the movable portion, and a center of translational forces of the linear elastic members coincide with a center of the virtual circle defined as a rolling center.

Claim 17 (new): The method of producing the actuator for the pickup according to Claim 15, further comprising:

installing the linear elastic members in a mold for molding the fixed portion and the movable portion; and

insert-molding the actuator for the pickup through injection of a molten resin from an injection port of the mold.

Claim 18 (new): The method of producing the actuator for the pickup according to Claim 16, further comprising:

installing the linear elastic members in a mold for molding the fixed portion and the movable portion; and

insert-molding the actuator for the pickup through injection of a molten resin from an injection port of the mold.